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ABSTRACT

The University of Arizona's (UA) Assessment Plan was established in the spring of 1987 when a Task Force of 20 presented a report on assessment of undergraduate education. The Task Force's underlying assessment principles include faculty leadership, multidimensional view of quality, multiple methods of assessment, multiple sources of information, and use of existing data where possible. A conceptualization of the Arizona Model guided the Task Force's design of the UA assessment program. The Task Force recommended and implemented establishment of a Center for Research on Undergraduate Education as the coordinating office for assessment efforts. Four sections are as follows: summary of the UA assessment plan; implementation during 1988-1989 (current, ongoing assessment efforts, incorporating assessment into ongoing department activity, assessment of general education, studies of students' experiences and achievements at UA, and the UA as a model for other research universities); outcomes of projects/studies undertaken during 1988-1989 (students, teaching, learning, and educational outcomes); and plans for 1989-1990 (faculty and staff involvement, studies of students' experiences and achievements, and assessing minority recruitment and retention). Three illustrations are appended (a sample letter of a freshman writing to a friend, a sample letter of a senior writing home, and some outcomes of college education). (SM)

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STUDENTS AND LEARNING AT THE UNIVERSITY OF ARIZONA:

ANNUAL REPORT TO THE ASSOCIATE VICE PRESIDENT

of the

CENTER FOR RESEARCH ON UNDERGRADUATE EDUCATION

SARAH M. DINHAM, Ph.D., DIRECTOR

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A: SUMMARY OF THE UNIVERSITY OF ARIZONA PLAN FOR ASSESSING THE QUALITY AND OUTCOMES OF UNDERGRADUATE EDUCATION

The University of Arizona's Assessment Plan was established in the spring of 1987 when, responding to the Provost's invitation, a Task Force of twenty presented a report on assessment of undergraduate education. The Task Force report addressed four issues surrounding implementation of a campus-wide assessment effort: It offered a broad definition of undergraduate education's purposes; it enunciated principles to inform the effort's planning at the University of Arizona; it described the criteria guiding their design of the assessment effort; and it recommended establishing a Center for Research on Undergraduate Education to coordinate the University's assessment efforts.

The Task Force recommended that the University's assessment efforts should rest in this definition of educational purposes:

> An undergraduate education should help students acquire both general and specialized knowledge, should cultivate intellectual skills, should foster sound intellectual habits of mind, and should concern itself with student development.

Several principles underlying the University's assessment efforts are:

*Faculty leadership
*Multidimensional view of quality
*Multiple methods of assessment
*Multiple sources of information
*Use of existing data where possible

A conceptualization called the "Arizona Model" -- as it has come to be known nationally -- guided the Task Force's design of the assessment program at Arizona. The Arizona Model has the following characteristics:

> It emphasizes that assessment is intended to enhance the undergraduate experience -- to generate significant improvements in the quality of teaching and learning.
>
> It affirms that assessment of both programs and students is currently underway in many quarters of the University.
>
> It proposes that a more systematic and comprehensive plan [than was then underway in scattered areas] is needed -- one leading to improved teaching and learning.
>
> It proposes that ultimately the effort should assess the institution's effects on student learning and development.

Lastly, the Task Force recommended establishment of a Center for Research on Undergraduate Education as the coordinating office for these efforts. This Center was established in January 1988.

In May 1988 the University of Arizona reported to the Arizona Board of Regents on its progress in implementing this Plan. That report restated the principles underlying Arizona's efforts in this area, reviewed activities then underway, and predicted for the 1988-1989 year the activities that would be emphasized. At all times -- including times when choices of procedure or focus were made -- the University of Arizona's efforts have been guided by the ultimate goal of enhancing undergraduate learning and teaching. That principle permeated the 1988 report and its effects will be seen throughout the paragraphs that follow.

B. 1988-1989 IMPLEMENTATION OF THE UNIVERSITY OF ARIZONA PLAN FOR ASSESSING THE QUALITY AND OUTCOMES OF UNDERGRADUATE EDUCATION

Current, Ongoing Assessment Efforts

Assessment of undergraduate students, student outcomes, and educational programs occurs throughout the University community. For example, at the time students enter the University, they already have provided demographic and admissions information, test scores, and survey information; then throughout their college careers the students are followed through the Student Information System. From these many pieces of information have come an understanding of -- for example -- incoming freshmen's views of public policy as well as personal issues, how transfer students fare at the University, students' choices and changes of major fields, and where withdrawing students go and how they view the University.

Two other ongoing assessments of students' academic work and progress are underway in the Departments of Mathematics and English in their entry level mathematics and composition programs. A mathematics placement examination is administered to all incoming freshmen to aid in recommending to students the appropriate first course for them to take. The Center for Research on Undergraduate Education's study of freshmen found that these placements are very successful; students find them accurate. The Department of Mathematics continues to assess and refine the entry level mathematics program; the Department's report amplifies upon these efforts and the resulting improvements are underway. The Composition Program similarly uses a placement examination to guide students into the appropriate level of Freshman Composition; the Center's study of freshmen found that this placement program is also very successful in guiding students to the proper level of instruction. The Composition Program also administers the Upper Division Writing Proficiency Examination, whose results are reported not only to each student but also to the students' major departments where advisors use the findings in their work with the students.

Incorporating Assessment into Ongoing Department Activity

At the University of Arizona we believe strongly that -- like the curriculum -- assessing the quality and outcomes of undergraduate education is most centrally the responsibility of the faculty. This belief has lead the Center for Research to explore ways to encourage faculty -- particularly academic departments -- to initiate their own assessment activities. A department

would, in the ideal situation, design and carry out its own information-seeking and compilation to serve its own educational planning and decisions. Three efforts during 1988-1989 have addressed this goal.

We had expected to be able to identify certain departments to serve as "demonstration departments" to experiment with innovative strategies for redefining and broadening their appraisal of the undergraduate education they themselves provide. This effort has proven to be more complicated than we had anticipated. For the departments we identified (based on a host of criteria including departmental excellence and an upcoming Academic Program Review) we found that assembling the information departments felt they needed required more faculty involvement than could be managed and more months than available before the Program Review began. As a result, we do not have the "demonstration departments" program originally predicted for this year, but instead will in mid-1989 devise a strategy for consulting with departments further in advance of their Academic Program Review about assessing the quality and outcomes of the education they provide for undergraduates.

A more general mechanism for holding department educational programs accountable for their effectiveness is the decennial Academic Program Review (APR). The University of Arizona APR procedure includes a Self Study, a review by a University Committee specially tailored for the department under review, and when appropriate an External Review as well. Because the guidelines for the Self-Study set the tone for faculty thinking about the decennial review as well as providing the foundation for the University Committee and External Review deliberations, the Provost directed that revised APR guidelines should be written in the Center for Research in order to incorporate the most current and most constructive thinking about assessment. These revisions were ratified in early 1989 and are now established policy for conducting decennial Self-Studies.

Assessment efforts are focused on faculty in a third way. While the Center for Research work described in this report might yield interesting findings in the abstract, changes in undergraduate education cannot be made unless useful information is available to those with the power to make the necessary changes. In the case of academic programs those people are usually the faculty. In the year just ending, our studies of students, learning and teaching have been designed to yield useful results for departments and colleges, and the findings are being compiled for distribution during the summer.

Assessment of General Education

Each College faculty at the University of Arizona is responsible for designing undergraduate programs to insure that each student pursues not only intensive study in a major field but also comprehensive study in a broad variety of academic studies -- often called "liberal studies" or "general education." Assessing the effectiveness of these general education efforts is also principally the responsibility of these several faculties, but the Associate Vice President for Undergraduate Education and the Center for Research on Undergraduate Education provide support and assistance where needed.

In 1987 the College of Arts and Sciences faculty instituted a new General Education Program, composed of both skill (writing, math, language) and study areas. The Program is governed

by a committee of eight faculty members charged with overseeing and evaluating the Program. During 1988-1989 the Committee began considering ways that the Program can be systematically documented its course offerings monitored, and its effects on student learning demonstrated. The ultimate goal of this evaluation is to strengthen the program -- to continue it where it is successful and to refine it where changes are warranted. The Center for Research provided technical assistance to the Committee during the 1988-1989 year and expects to continue this assistance as the evaluation effort is implemented.

Studies of Students' Experiences and Achievements

The studies summarized below were designed as systematic, comprehensive investigations into the full range of students' experiences at the University. All were planned to yield findings for academic departments, student personnel staff, and university administrators to use to identify ways to strengthen undergraduate education at Arizona.

In designing these studies we combined (1) theoretical premises gathered from the vast resources of others' research about college students' learning and development, (2) themes pursued by the Regents' Task Force on Excellence, Efficiency, and Competitiveness (EEC), (3) the University of Arizona Mission and Goals statements, and (4) attention to groups and issues especially important at this University, such as minority students, transfer students, teaching effectiveness and advising. Information in these studies is gathered from individual students we have interviewed or surveyed, other surveys such as those conducted by EEC, and writings from other universities investigating similar questions. The findings from these studies are blended in the discussion found in Section C of this report.

The effort we call our Longitudinal Study began in 1988 with intensive study of freshmen we are "adopting" to follow through their academic careers. The purpose of this study is to see how students grow and change in their learning, their experiences at the University, and their achievements throughout their years to graduation. To the core group of ten freshmen randomly selected and intensively interviewed in Fall, 1988 were added fifteen for the Spring 1989 semester, bringing our total of participating students at the end of their freshman year to 25. In this study a carefully designed interview for these students is supplemented by data for the freshman class as a whole. In the coming years of this study we will add further groups of students (in 1989-1990, sophomores) in which the University has special interest, such as transfer students, minority students, and older students.

A special study of fourth-year Mexican American students is investigating these students' ability to remain in school -- to "survive" against many odds and to succeed at the University. The students being studied are all those Mexican American students who have been continuously enrolled since Fall, 1985 and for whom the University's student files include data collected when these students enrolled as freshmen. We are using a scrupulously designed interview to identify the common experiences of successful students, probing especially to discover factors that the University can use to enhance these students' academic and social integration into the University and to strengthen academic and student support programs for these students.

Because students' experiences throughout the entire University affect their learning and their achievement, we are surveying a cross section of students midway through their educational programs. Through a questionnaire students complete when they register for the Writing Proficiency Examination, we are gathering information on students' accomplishment of a number of common educational goals, their learning/teaching/advising experience in their major fields, and their range of extracurricular participation. Information from this study will be directed to the pertinent academic departments and student support offices to help them assess and strengthen their own programs.

Since seniors' views of their college experience can bring comprehensive and vivid perspectives on the University, we are focusing a special effort on seniors. To supplement our information from other researchers' studies of college, our information from the EEC survey, and other internal data, we have carefully sampled and intensively interviewed a group of seniors about their University of Arizona education. The findings from this study, like those from the other projects detailed above, are woven into the next section of this report. During 1989-1990 the interviewed seniors will be followed through their first postgraduate year.

Investigations about the University's effectiveness would be incomplete without querying alumni, who can provide a valuable perspective about the quality of their education because their professional and personal lives give them insight into its true value and how it could be improved. Our study drew a random sample of graduates from the Alumni Association files in order to address such questions as these: How do alumni assess their college experiences? What aspects of their education helped them with (or hindered them in) developing important intellectual, life, and career skills? What aspects of their college experience best prepared them for their life after college? To what extent have they acquired the personal characteristics, knowledge, and skills widely considered to be desirable outcomes of a college education? How could their college experience have been better? From about 250 responses we are assembling information not only for the University as a whole but for the use of individual academic and student services departments.

The University of Arizona as a Model for Other Research Universities

The University of Arizona's assessment plan, its implementation, and our current efforts have brought interest from other similar institutions around the nation. We attribute this interest to several factors: (1) the emphasis at Arizona on assessment designed to influence students' learning by strengthening the University's academic and support programs, (2) the fact that Arizona had developed and implemented a comprehensive plan before most other major universities had done so, and (3) the potential usefulness of our strategies and findings to wider audiences. We have discussed both our views and our experience at several national conferences, treating both assessment issues in general and the Arizona assessment activities in particular. Because of our own professional interests, we have given special attention in several of these conference papers to the relationship of assessment with accreditation in professional schools. We have consulted with other institutions by phone as well, often sending our writings to them at their request.

C. OUTCOMES OF PROJECTS/STUDIES UNDERTAKEN DURING 1988-1989

Students

Information about students has been gathered from several sources: our longitudinal study (this past year focusing on freshmen), our survey of student experiences through college, our study of seniors, the survey of alumni, and the work of the Student Affairs research office.

The quality of academic preparation shown by incoming freshmen is a topic of widespread concern. The EEC Task Force investigated these questions, and elsewhere throughout the Arizona Universities System faculty and administrators alike are searching for ways to ensure that college-bound high school graduates are sufficiently prepared. Freshman students who tell us they were adequately prepared for college say they had teachers who pushed them to succeed and expected high academic performance from them; these students also said their high schools offered advanced placement and honors courses. Students reporting that they were unprepared for college mentioned not only their high school academic background ("I wish my teachers had pushed me more") but that if they had it to do over again they would have taken more responsibility for their own learning by developing good study habits in high school, taking the hardest courses they could, and not wasting their senior year.

Becoming oriented to university life is frightening for many freshman students; they report that living in the dormitory as a freshman is extremely helpful, as are developing effective study habits immediately. Freshmen think that living off campus has little effect upon their academic work but makes a substantial difference in becoming part of the campus community; research at other universities shows, however, that this freshman perception is naive, and in fact being involved in (and on) campus does influence students' academic success. This is especially true for female hispanic students, whose commitment to school work competes with family members' expectations when they live at home.

The University of Arizona's Student Affairs Research and Testing Office intensively studies students' expectations and attitudes at the beginning of the freshman year, and tracks academic performance, transfers and withdrawing students. The results of their work have this year been distributed in reports to the pertinent student services offices and also widely disseminated campus-wide in well-received news-brief formats.

Students themselves are remarkable, and their lives remarkably complex. Illustration One (following the last page of this report's text) condenses our findings about the freshman year at the University of Arizona. This narrative gives no single student's story, but instead combines all our freshman student data into a typical profile. Similarly, Illustration Two demonstrates the intensity of the typical senior's reflections on education and life at the University of Arizona.

Students attach varied importance to the many effects college might have upon their lives. Illustration Three lists a variety of outcomes that students at the University of Arizona might attain; in addition to measuring the extent to which students say they attain these various goals, we asked them about the importance they ascribe to each. Such intellectual abilities as "analyzing and synthesizing" were rated highly by all students, and other intellectual habits'

varied in the importance students give them. Student development areas are high in importance for students at most levels of their education; clearly for them the college experience is personal as well as intellectual. The general education goals are seen by enrolled students as only moderately important. Among the more traditional skills, students in general say they believe writing most important, math next, and languages lowest of these three; the importance of the additional skills (computer, public speaking, information) depends upon the students' circumstances. Not surprisingly students feel the college outcomes related to their major field are generally high; similarly the career-focused outcomes are also important to students.

Teaching

Our information about students' views of teaching comes from several sources: our study of freshmen, our survey of ongoing students at about the junior level, our study of the college experience as seen by seniors, and our survey of alumni. The paragraphs below summarize only a few of the major themes about teaching that have emerged from these varied sources of information.

Perhaps the most troublesome information about teaching comes from students' reports about lower division courses. This is, of course, not news to any student, parent, faculty member, or administrator concerned about teaching effectiveness at a major research university. Freshmen found themselves "lost" in large classes, and even alumni distinctly remembered their frustration with crowded courses.

For freshmen one very positive aspect of lower division teaching has resulted from the mathematics and composition placement tests administered to all freshmen. Students reported that these tests were for the most part successful in guiding them into the proper course level in each of these two disciplines. Even students who initially felt they were placed incorrectly by the tests agreed later that their placement had been correct. Both the Department of Mathematics and the Department of English continue to track student progress through their courses in order to refine the placement procedure and further assure student success in these important fields.

Quite honestly, advising may be an educational Achilles heel for a major research university offering otherwise fine undergraduate programs. Arizona's section of the Associated Students of Arizona report to the Arizona Board of Regents discusses advising, and last year a special University of Arizona task force on advising recommended significant initiatives and changes in the undergraduate advising system. The effects of these recommendations and their consequent changes are of course not visible in information we have gathered this past year; rather, we have learned more about the kinds and sources of difficulty students have with advising. For example, many first semester freshmen said that even three months into the freshman year they had not yet seen an advisor unless they had gone to Orientation. In the spring semester, after actively seeking advising, most were dissatisfied with their advising experiences -- many (although not all) advisors did not have enough information, would talk only about scheduling, and rushed them out the door. Almost two thirds of the students surveyed further along, however, reported meeting with an advisor at least once per semester, and over 80% said the advising in their major field was at least acceptable, if not good or excellent. Alumni have told us in about the same numbers that they remember advisors as

being accessible; they did not, however, recall receiving the necessary assistance or mentoring to help them make plans for their future.

In these studies about advising we have not, of course, talked with advisors or administrators, but we will continue to try to link these advising issues with other information in order to uncover ways that advising can be strengthened.

Students have reported positive experiences in their major fields -- varied courses, a well-coordinated program of study, varied teaching methods, accessible teachers, good overall instructional quality, useful feedback from teachers, well-prepared professors, clear communication with teachers. Apparently as soon as students become integrated into their academic fields, the advising, teaching, and learning problems that lower division students report (and alumni still remember vividly) decline and education improves markedly.

A controversial topic at any major university is the role of teaching assistants in undergraduate instruction. We have found that while TAs receive deserved criticism in many realms, they also make unique, positive contributions. We have learned about these contributions from freshmen who find TAs more approachable, from ongoing students who report at least acceptable (if not good/excellent) quality of instruction by TAs, and from alumni recalling that they encountered few unprepared teaching assistants. In short, these contributions can be capitalized upon and undergraduate instruction can be strengthened by judicious education, assignment, and monitoring of teaching assistants throughout the University.

Learning

Information about their learning came from all students we studied. Because our philosophy of assessment calls for finding the links between educational outcomes and the sources of those outcomes, we asked all groups not only about what they learned but also where they learned it. The following paragraphs briefly summarize their answers to this important question.

Students gain significantly from their courses and professors -- both in their major fields and in their other courses. Specifically, the educational goals known as "intellectual habits," general education, and intellectual skills came from these important, formal educational experiences. Students and alumni alike identified their major field courses and professors as major contributors to their educational gains. Interestingly, not only their courses and instructors but also their peers and friends were said to make a difference in career-related learning.

Indeed learning of all kinds results from many nonacademic experiences at a large, complex university. At the University of Arizona we believe that the learning occurring outside the classroom can be as important as the traditional academic learning -- and many times is necessary for students' academic success. Student services are used heavily, for example, with about half of our ongoing students saying they use Old Main student services at least once per semester, and with freshmen to seniors emphasizing the importance of dormitory or other involvement on campus. Alumni reported broad and varied involvement in campus activities; the most popular activities were clubs and internships/cooperative education in the major field, and intramural sports. Students throughout the range from freshmen to alumni also reported on the gains they received from their college experience. To these educational outcomes we turn next.

Educational Outcomes

The effects of a college education are multiple, complex, and far-reaching. In order to strengthen our students' education, the University of Arizona needs to know about all the effects that college can have on students -- for example from the short-term gains in students' personal independence to the intermediate effects of more complex thinking ability to the long-term outcome of the graduate's more effective professional participation in the global community.

The outcomes listed in Illustration Three are, of course, only one array of many that could be used at Arizona or elsewhere to mark students' progress through and beyond college. We have used these throughout our research on students' experiences to identify where and to what extent the University of Arizona can be said to influence students' lives. At this time, our major source of information is the students themselves. We have been careful to ask the students where they have made gains and how the University contributed to those gains.

In the initial Task Force Report on Assessing the Quality and Outcomes of Undergraduate Education, a range of intellectual skills and habits were highlighted as being among the most important objectives of education. Students report gains in most of these areas throughout their college education. For freshmen, of course, their gains depend upon the courses they take; foremost among the gains they report are increased skills in composition and mathematics. Encouraging, however, is their report that in overall "enthusiasm for learning" they have gained from their few months here as well. Students in school and graduates also indicate that college has had a real influence in these areas -- again depending upon the area.

General education objectives -- the five liberal studies academic areas identified in our College of Arts and Sciences General Education Program -- vary in the extent to which they have been accomplished, according to students. These five rather abstract objectives mean less to freshmen then to students later in their education; seniors and alumni report mixed accomplishment of these outcomes.

Students' development through college is not only personal but also intellectual, social, and professional. Students report substantial advances, even in the freshman year, with many of the student development goals we asked about. In substantial numbers, not only freshmen but also more advanced students report making at least moderate if not "a lot" of progress on these goals; even alumni looking back on their education report making significant gains in these areas.

Students' major fields are especially important to them, we find. However not until students are well past the freshman year do they report making substantial progress toward accomplishing these goals. Once they are upperclassmen, over 85% of our students indicate that they have made either moderate or "a lot of" progress toward these accomplishments; 90% of our alumni so indicated.

Career preparation is similarly important to students at all levels. Again, once they are upperclassmen, over 83% of our students say they have made moderate or "a lot of" progress toward the career preparation goals. Interestingly, alumni indicated less progress toward these goals than did students; perhaps they have a different perception of what constitutes career preparation.

We also asked alumni about other effects of their college education. Over a third indicated that their current activity in reading books for leisure, attending plays/concerts, and visiting museums/galleries could be attributed to their college experience. Fewer said their civic activities (e.g. voting) were influenced by college. Alumni also confirmed that many aspects of their personal development were influenced by college -- for example being able to converse about a broad range of topics, having friends from different cultures, questioning experts' advice, and following current events.

D. PLANS FOR 1989-1990

The University of Arizona philosophy about assessment concentrates on strengthening University programs so students are the direct beneficiaries. The key to this view of assessment is that faculty and staff are involved in information-based decisions that will benefit students. Hence, faculty and staff involvement in the University of Arizona's assessment processes -- a principle guiding our activities since 1987 -- will be the chief focus for 1989-1990. This focus will mean that we will:

Assist the General Education Committee of eight faculty to develop and implement a comprehensive evaluation strategy for monitoring and assessing the effects of the general education program. Further, we will be assisting the Associate Vice President in coordinating general education programs among Colleges within the University.

Consult with departments initiating Academic Program Review self studies to give them data about their students and to suggest ways they can further assess their own undergraduate programs' effectiveness.

Design and implement systems for returning to interested departments the information about University of Arizona students that could guide their decision making.

A comprehensive assessment program like Arizona's can succeed where fragmented programs fail when we come to understand which students with what characteristics benefit from what kinds of college experiences to produce which effects upon their intellectual and personal lives. Our studies of students therefore will continue, focusing upon the ways the University of Arizona influences them and the ways the University can improve. This continued effort will mean:

Continuing our longitudinal tracking of freshmen into their sophomore year, focusing upon their intellectual growth and their developing strengths as young adults. The project will emphasize discovering the ways that the University experience can be improved for all students.

Adding to our longitudinal study three groups of important students: minorities, older students, and transfer students. We will be tracking their successes and failures, and will emphasize the effects of college upon their lives.

In order to understand college's immediate effects upon our graduates' lives, we will follow into the first postgraduate year as many of the seniors studied last year as we can locate, to discover how college influenced their work.

In 1989-1990 we will be giving special attention to the many minority recruitment and retention efforts underway at the University of Arizona. An imaginative and promising variety of programs has been instituted at Arizona to interest minority students in attending the University and to enhance their likelihood of success. These programs are currently being monitored separately, but in 1989-1990 their evaluation will be coordinated. This coordination is managed jointly between the Center for Research on Undergraduate Education, the Student Affairs Research and Testing Office, and the Office of Management Analysis and Research.

Illustration One: A Freshman Writes to a Friend

Dear Lee,

When I left home to go to the University of Arizona I promised to write in May to tell you what to expect when you come here in August. Well, here goes.

I felt ready for school because the East High teachers pushed me to work hard and study well, and it helped too that I had advanced placement classes. My friends who felt totally unprepared said they wish they'd had tougher teachers, studied harder and learned to study better. When I got here, though, the campus size really scared me. It was much better to be in a dorm where I could meet people and the RA's (that's resident assistants) could help us find our way around. The loneliest people around here are the out-of-state freshmen living off campus. It's important to go to orientation, too – very helpful.

Kids who had an idea of a major seemed at first to be more sure they'd stay here and finish the whole college thing than kids who came here without a clue. But now in May, I can see that most freshmen are pretty sure they'll be around for the long haul. Most have either decided on a major or changed majors once or twice -- no big deal to change your mind.

I've really gotten involved with more than just academics. It makes a difference to get involved somewhere! Making new friends beyond our old high school friends is really important, and also if you work, try to work on campus! I joined a hiking club where I met some terrific people and also I'm thinking about the student group in my major to get involved with.

At the beginning of the year I really needed an advisor and with all the confusion I got some scheduling information but no real attention. Now that the year's ending I'm really bummed out by the advising – once I did get in to see somebody I learned that some faculty members don't know everything they should know, and they seemed in such a hurry to get to the next kid in line. Some of my friends have had good advising, though. Maybe they're just lucky, or they find a great professor. But I got my best information from friends, and from the catalog and other stuff they hand out.

They give us a Math Placement test and also an English Placement test – both are a good idea because they help you know what math and composition courses to take. I thought the courses I took were just right for me – the tests put me in honors math and regular English. In fact the most valuable courses I took this year were my writing classes and the first classes in my major. In my writing class I learned to use that huge library – there's a lot more to it than we had at good old East High!

Outside class you don't talk much with regular faculty members – I guess students feel intimidated by them or something. The TAs (teaching assistants) may not know as much as professors but students are more comfortable with them – closer to our age, I guess, and maybe more approachable. The older students tell me that after a while they get more used to professors and then they like them. Anyway, my best teachers were both interested in their subjects and interested in me, and made all that go together well. My worst teachers just didn't seem to care about whether I learned, or even whether I understood them.

So I hope this is helpful. You'll really like it here once you get here and get involved. See you this summer!

Bye for now,

Tom

Illustration Two: A Senior Writes Home

Dear Family,

Here it is, the end of the semester and only a few days from graduation. I thought maybe I'd try to write and tell you all about college. Well, mostly all. It's a way to summarize for you how it was to be here at the U. of A.

Actually some of my friends have some good ideas too, so I'll add them. It's so interesting to talk to seniors from different departments -- and also to see the differences between them -- returning students, minorities, students from other states, all with their particular experiences and their own views of college. You could never talk to just one or two students and believe you have the full picture here.

First impressions -- it was tough that first year. As Pat said, we were "all blown away by the hugeness of it all." What were the requirements, whom to talk to. Not easy, especially for kids who didn't go to the summer Orientation program. But we got by -- we survived. Then we got to know the campus better -- we got into cultural activities and sports -- and the U offers a lot of services that we eventually learn about; I wonder how many things there are that we didn't have the least clue about. We learned about general education requirements and we weren't very happy with them but now in retrospect most of us see their value, I find, although some people still think college should focus on careers and not general studies. We learned to cope with the bureaucracy, too.

Some of our courses were excellent. Some opened our eyes to ideas we just hadn't considered; others were practical. Professors make or break a course. When I got into my sophomore year my classes become smaller -- now I could get to know professors and the class atmosphere was better. The class difficulty and demands really began to increase. Especially my friends in professional schools saw a really competitive atmosphere.

With professors, most of us had some excellent and some not too wonderful experiences. Three things were important in our good professors: their knowledge and their interest in students especially, and also the way they taught. Our best professors demanded quite a lot, were really skillful teachers, but above all were concerned for us as people. The bad professors, by contrast, didn't seem to be interested in us -- no office hours, no time for us. They also just couldn't teach -- couldn't communicate ideas to us. Some didn't prepare for class and didn't encourage us to think.

We also found that TAs, though maybe not as specialized as professors, were many times as good as professors. Why? Because they were able to understand us since they were usually younger and were also students. Some of us, though, felt cheated since we had paid for an education and expected a professor to do the teaching.

Advising has really been lacking. Actually it's usually just scheduling, not real "advice," and funny thing -- it was in our last years when we were assigned advisors in our majors but it was early when we most needed them.

Most students work at least once while attending the U. Many worked all the way through and for some, being a full time student at the same time was difficult.

There's an eternal debate here about research and teaching because professors are expected to do both, but both take a lot of time. Students recognize the importance of advancing knowledge (as the President said, if universities don't do that, soon there will be nothing new to teach about) but we feel undergraduate education is very important.

Overall, I'd say that I'm happy I came to school here, that I did pretty well as a student and as I have been growing up, and that my college education is a success. I hope you can be as proud of me as I am grateful to you for your support and encouragement.

See you soon,

Chris

Illustration Three: Some Outcomes of a College Education

Intellectual Habits

Respect for evidence, reason, logic
Analyzing, synthesizing, or evaluating complicated ideas
Tolerating uncertainty when searching for answers
Enthusiasm for learning

Student Development

Ability to lead and supervise others
Developing independence
Understanding and appreciating people with different background and points of view
Making wise decisions
Developing your own values and ethical standards
Feeling a sense of acceptance and belonging when dealing with groups of people
Developing self-esteem and confidence
Respecting the rights of other people
Understanding oneself--abilities, interests, personality
Becoming an effective team or group member
Developing self discipline
Developing an ability to question authority

General Education

Appreciating art, music, drama, and literature
Understanding western culture in today's world
Understanding scientific language, practice, methods, and logic
Examining and understanding individuals and social behavior
Understanding non-western cultural values and traditions

Intellectual Skills

Writing clearly and effectively
Developing mathematical abilities
Proficiency with a foreign language
Skills in public speaking
Familiarity with computer use
Library and other information/research skills

Major Field

Becoming knowledgeable in a specific (major) field
Becoming skillful in the techniques/procedures in the major field
Identifying and solving complex problems in the major field

Career Preparation

Gaining knowledge/skills necessary for a successful career
Preparing for a personally fulfilling career